

Notice No.5

Rules and Regulations for the Classification of Ships, July 2021

The status of this Rule set is amended as shown and is now to be read in conjunction with this and prior Notices. Any corrigenda included in the Notice are effective immediately.

Please note that corrigenda amends to paragraphs, Tables and Figures are not shown in their entirety.

Issue date: November 2021

Amendments to	Effective date	IACS/IMO implementation (if applicable)
Part 3, Chapter 2, Section 2	Corrigendum	N/A
Part 3, Chapter 4, Section 6	Corrigendum	N/A
Part 5, Chapter 1, Sections 5 & 7	Corrigendum	N/A
Part 5, Chapter 2, Sections 11 & 15	Corrigenda	N/A
Part 5, Chapter 10, Section 7	Corrigenda	N/A
Part 5, Chapter 11, Section 10	Corrigendum	N/A
Part 5, Chapter 16, Section 3	Corrigendum	N/A
Part 6, Chapter 2, Section 10	Corrigendum	N/A
Part 7, Chapter 13, Section 3	Corrigendum	N/A

Part 3, Chapter 2

Materials

■ Section 2

Fracture control

2.2 Refrigerated spaces

Table 2.2.1 Material classes and grades

ADDITIONAL MINIMUM REQUIREMENTS FOR SINGLE SKIN BULK CARRIERS SUBJECTED TO SOLAS REGULATION XII/6.5 XII/6.4		
F1.	Lower bracket of ordinary side frame, see Notes 6 and 7	Grade D/DH
F2.	Side shell strakes included totally or partially between the two points located to 0.125/ above and below the intersection of side shell and bilge hopper sloping plate or inner bottom plate, see Note 7	Grade D/DH

Part 3, Chapter 4

Longitudinal Strength

■ Section 6

Hull shear strength

6.2 General

6.2.2 Shear flow calculation procedures are generally to be in accordance with ~~ShipRight Procedure Additional calculation procedures for longitudinal strength, July 2016~~ LR's ShipRight Procedure Additional Calculation Procedures for Longitudinal Strength.

Part 5, Chapter 1

General Requirements for the Design and Construction of Machinery

■ Section 7

Spare gear for machinery installations

7.2 Guidance for spare parts

7.2.1 For general guidance purposes, spare parts for main and auxiliary machinery installations are shown in ~~the~~ LR's Spare Gear Guidance ~~located on Class Direct~~.

■ Section 5

Trials

5.2 Sea trials

5.2.7 The following information is to be available on board for the use of the ~~master~~ Master and designated personnel:

Part 5, Chapter 2

Reciprocating Internal Combustion Engines

■ Section 11

Factory Acceptance Test and Shipboard Trials of Engines

11.4 Shipboard trials

Table 2.11.2 Scope of shipboard trials for engines

Main engines driving fixed-pitch propellers or waterjet (see Note 1)		
Trial condition	Duration	Note
At rated engine speed, <i>R</i>	≥ 4 hours	-
At engine speed corresponding to normal continuous power	≥ 2 hours	-

■ Section 15

Engines supplied with low pressure gas

15.3 Risk Analysis

15.3.2 Risk analysis shall be undertaken to a recognised standard, e.g. ~~ISO 31010:2009~~ *ISO 31010 Risk management – Risk assessment techniques*, and documented in accordance with LR's ~~ShipRight Procedure for Risk Based Designs (RBD)~~ *ShipRight Procedure Risk Based Certification (RBC)* and associated annexes.

All instances of Risk Based Designs (RBD) have been replaced with Risk Based Certification (RBC) throughout this Ruleset.

Part 5, Chapter 10

Steam Raising Plant and Associated Pressure Vessels

■ Section 7

Boiler tubes subject to internal pressure

7.1 Minimum thickness

Table 10.7.1 Minimum thickness of tubes

Normal outside diameter of tube, in mm	Minimum thickness, in mm
> 38 < 50 <i>> 38 ≤ 50</i>	2,16
< 50 < 70 <i>> 50 ≤ 70</i>	2,40

Part 5, Chapter 11 Other Pressure Vessels

■ Section 10 Hydraulic tests

10.1 General

10.1.1 Pressure vessels covered by this Chapter are to be tested on completion to a pressure, p_T , determined by the following formula, without showing signs of weakness or defect:

~~$$p_T = 0,13 \frac{\sigma_{50t}}{\sigma_T(t-c)} \rho$$~~

$$p_T = 1,3 \frac{\sigma_{50t}}{\sigma_T(t-c)} \rho$$

Part 5, Chapter 16 Water Jet Systems

■ Section 3 Design requirements

3.7 Nozzle/steering arrangements

3.7.5 In addition to the requirements in [Pt 5, Ch 16, 2.1 Water jet arrangement 2.1.1](#), for ships fitted with a single steerable water jet, where the main steering gear comprises two or more identical power units and two or more identical steering actuators, auxiliary steering gear need not be fitted provided that the steering gear:

- (c) Is arranged so that after a single failure in its piping system or in one of the power units², steering capability can be maintained or speedily regained.

Part 6, Chapter 2 Electrical Engineering

■ Section 10 Converter equipment

10.3 Uninterruptible power systems

10.3.14 UPS units utilising lithium battery systems as energy storage devices are to be in accordance with the following sub-Sections of these Rules as applicable and to the recommendations of the battery manufacturer:

- [Pt 6, Ch 2, 21.1 Testing](#).

Part 7, Chapter 13 On-shore Power Supplies

■ Section 3 Electrical Connection connection

3.2 Connection Equipment equipment

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